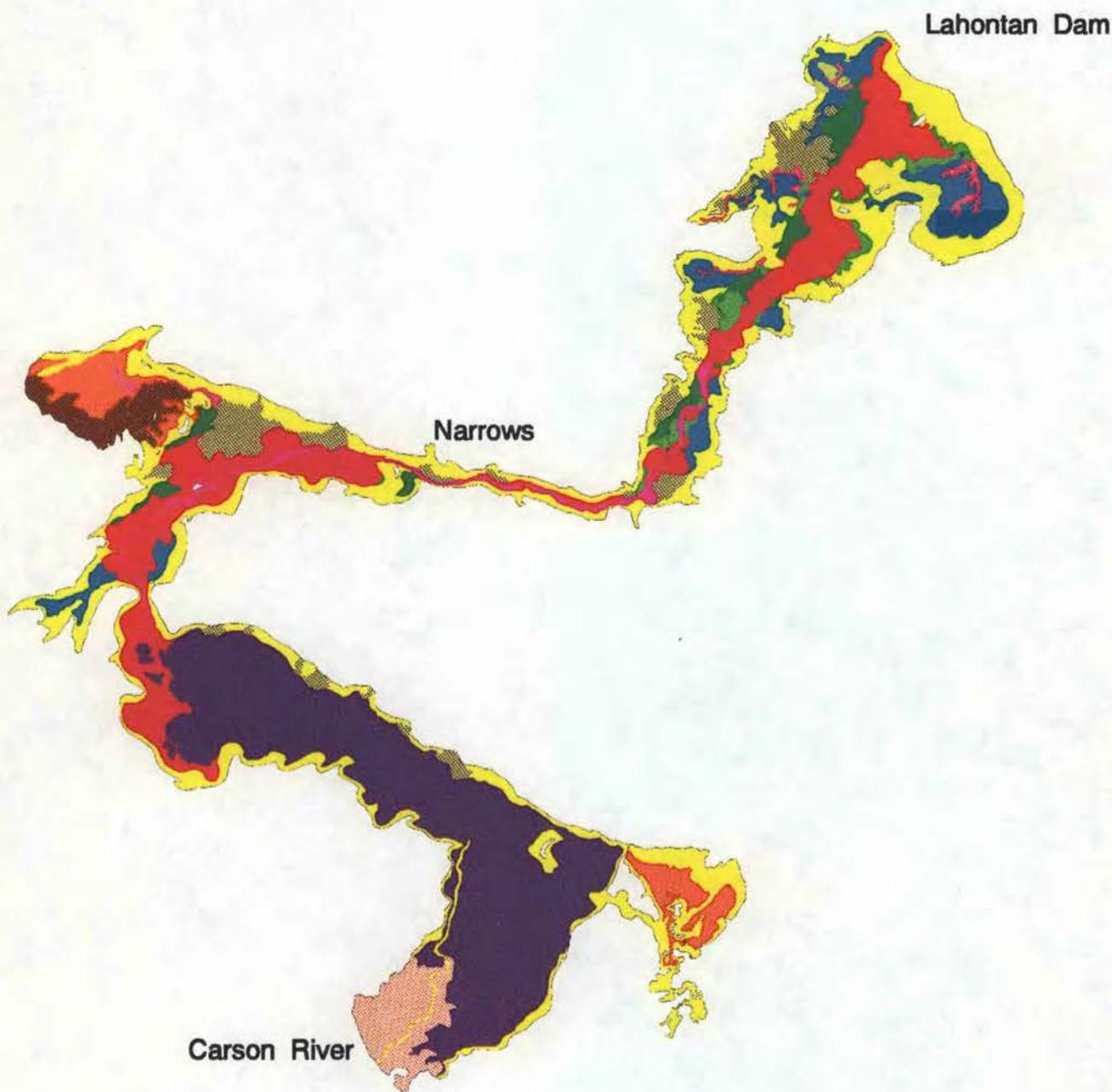
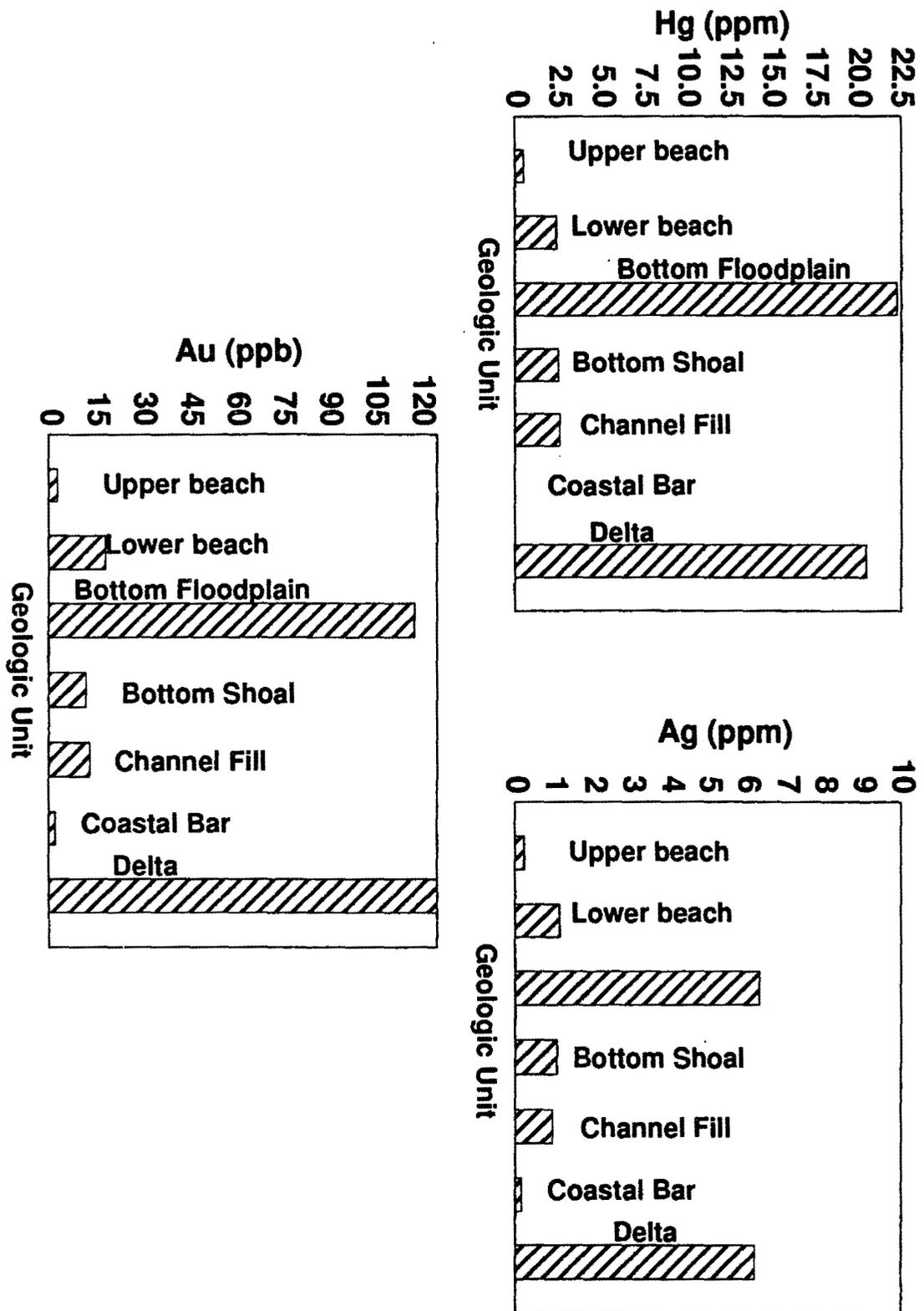


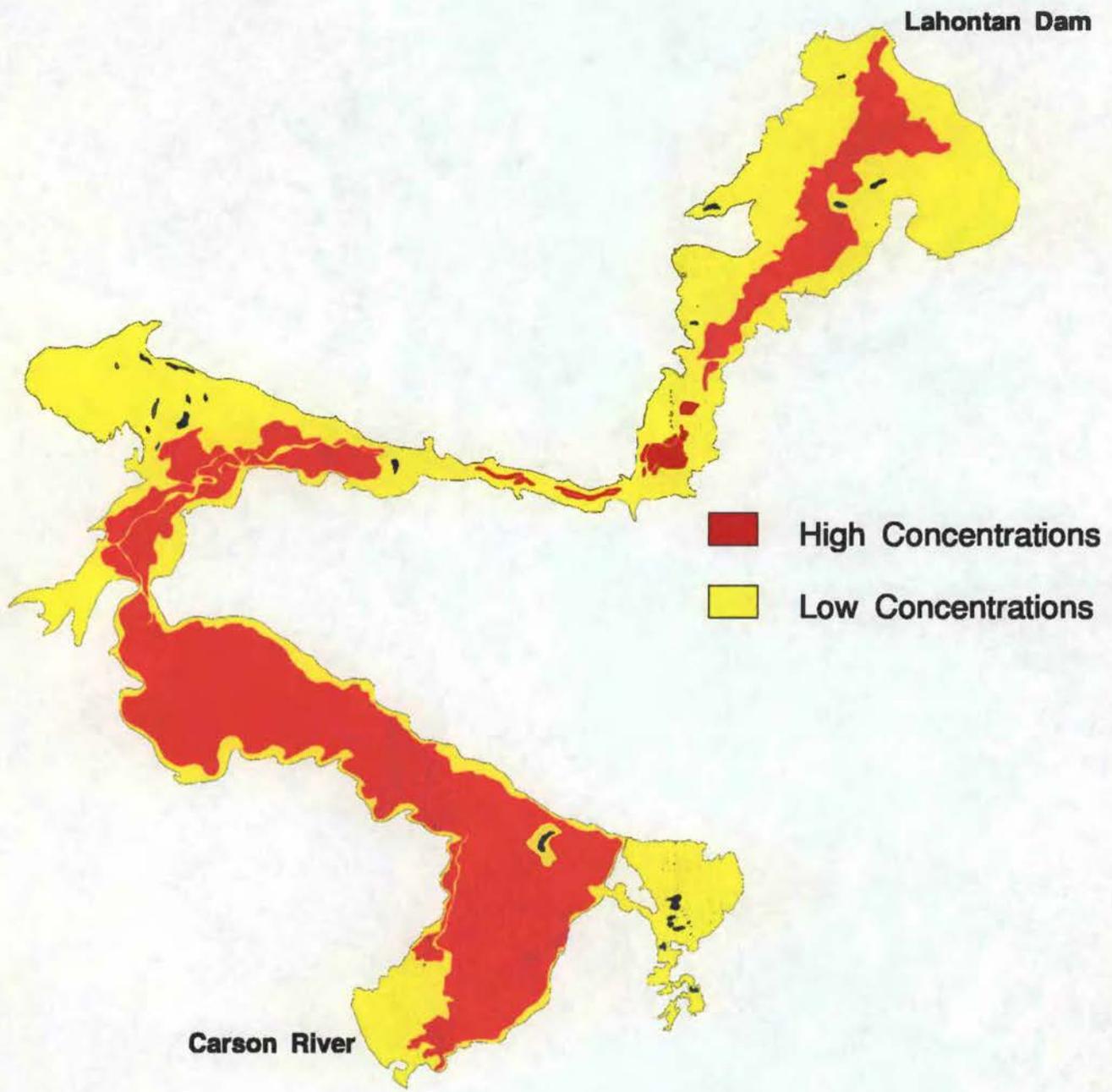
# Geologic Map of Lahontan Reservoir



- |   |                       |   |                            |   |                       |
|---|-----------------------|---|----------------------------|---|-----------------------|
|  | Upper Beach Deposits  |  | Bottom Floodplain Deposits |  | Eolain Deposits       |
|  | Lower Beach Deposits  |  | Bottom Channel Deposits    |  | Alluvial Fan Deposits |
|  | Coastal Bar Deposits  |  | Bottom Shoal Deposits      |  | Pluvial Lake Deposits |
|  | Channel Fill Deposits |  | Deltaic Deposits           |  | Carson River Deposits |



# Zones of High Hg Concentration



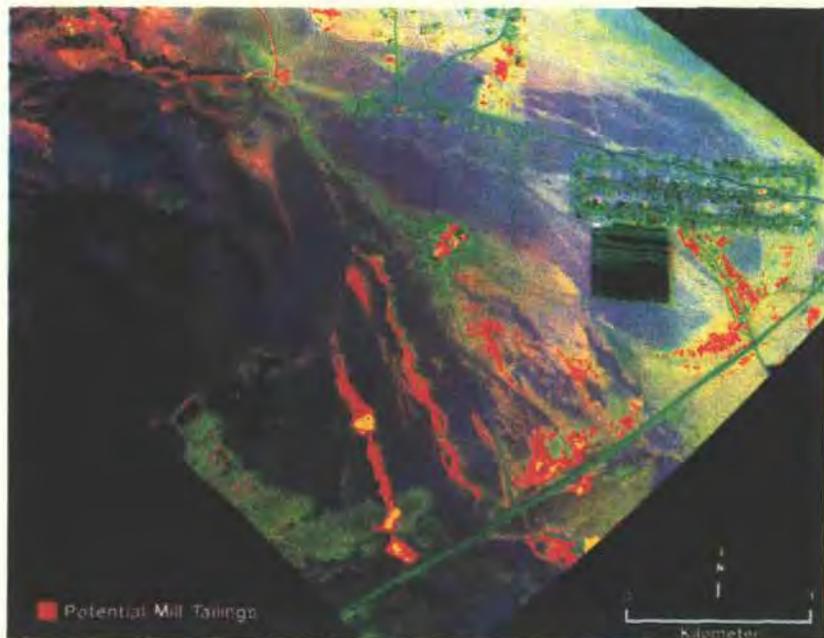


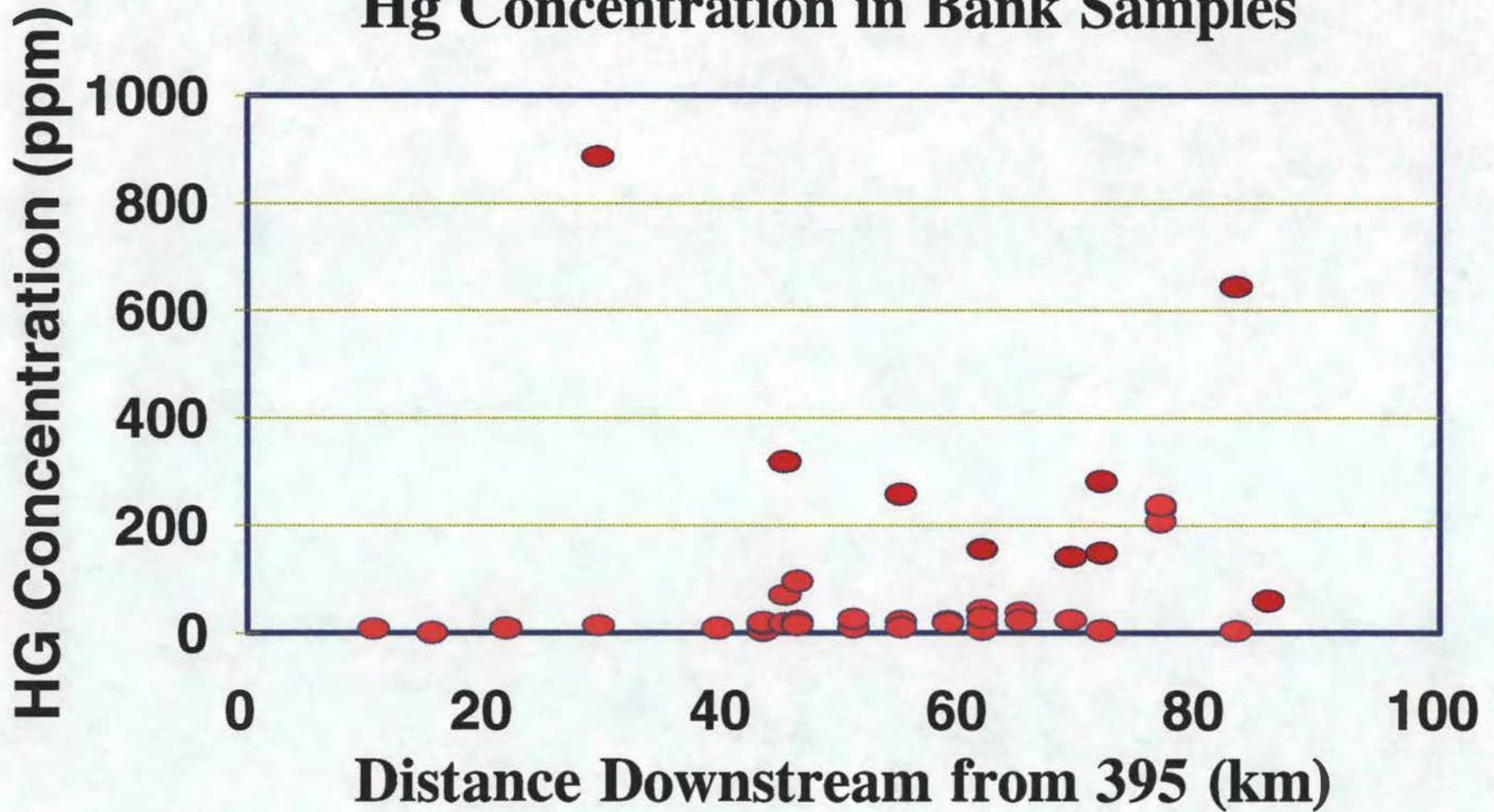
Plate 1. A three-band color composite of the Sixmile Canyon alluvial fan, Nevada; channel 21 ( $9.700\mu\text{m}$ ) is color-coded red, channel 11 ( $2.044\mu\text{m}$ ) is green, and channel 7 ( $0.830\mu\text{m}$ ) is blue. Vegetation appears black in this image and alteration materials appear yellow to light pink. The similarity index map of potential mill tailings is overlaid on the image in bright red.



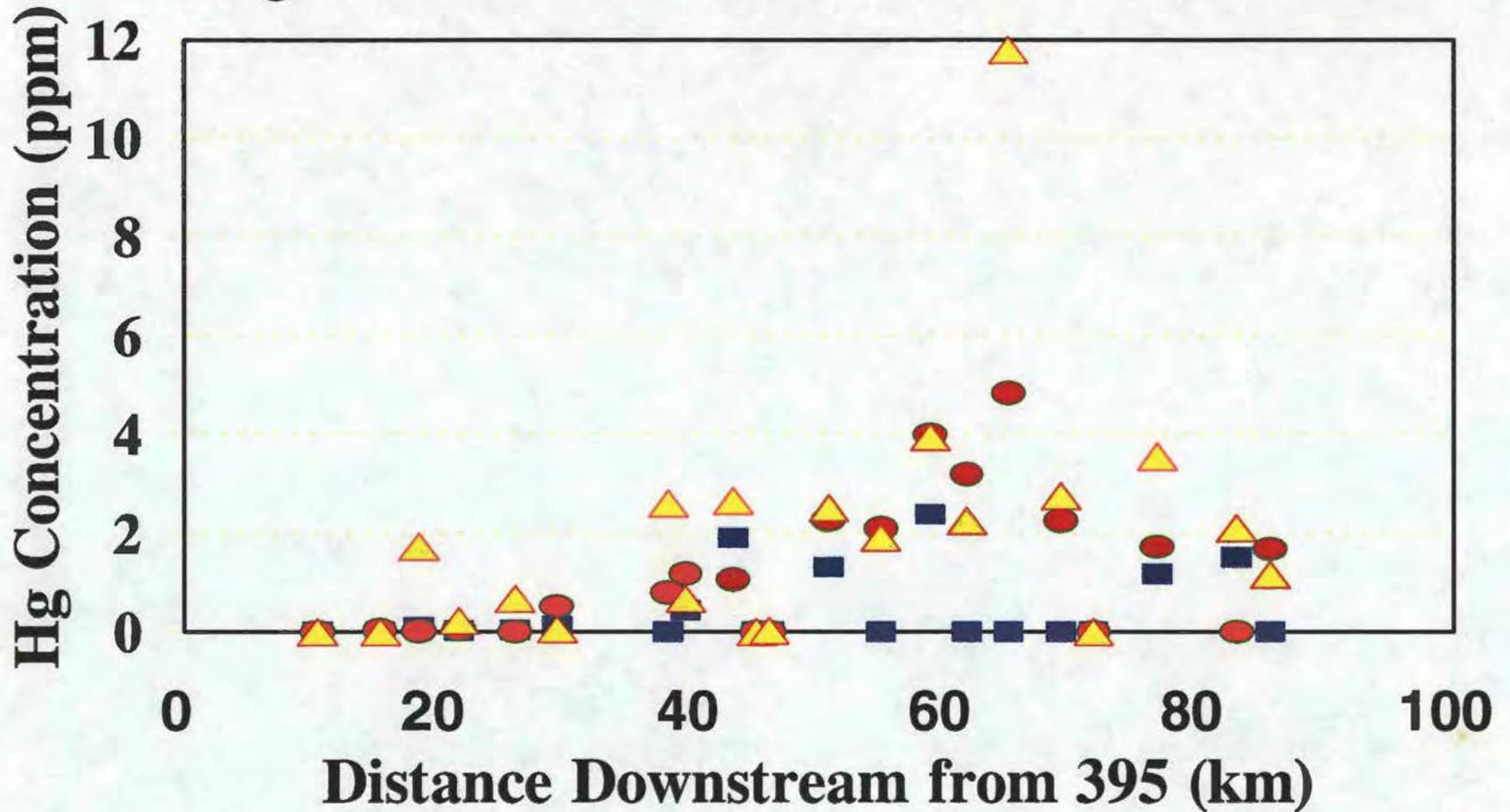
- |  |   |
|--|---|
| <b>Vf</b> Valley fill deposits               | <b>Pmc</b> Post-mining contaminated sediments     |
| <b>Ovf</b> Older valley fill deposits        | <b>Pnc</b> Post-mining non-contaminated sediments |
| <b>Crf</b> Carson River floodplain sediments | <b>Pms</b> Pre-mining sediments                   |
| <b>Ecs</b> Eolian contaminated sediments     | <b>Md</b> Mine and mill tailings dumps            |
|  | <b>●</b> Sample location                          |

Plate 2. Surficial geologic map of the Sixmile Canyon alluvial fan, Nevada. The mill tailing sediments identified by analysis of the Geoscan data are displayed in red. Mercury contamination has been measured in units Pmc, Ecs, and Md.

## Hg Concentration in Bank Samples



## Hg Concentrations in Channel Sediments



■ Riffles

● Pools

▲ Point Bars

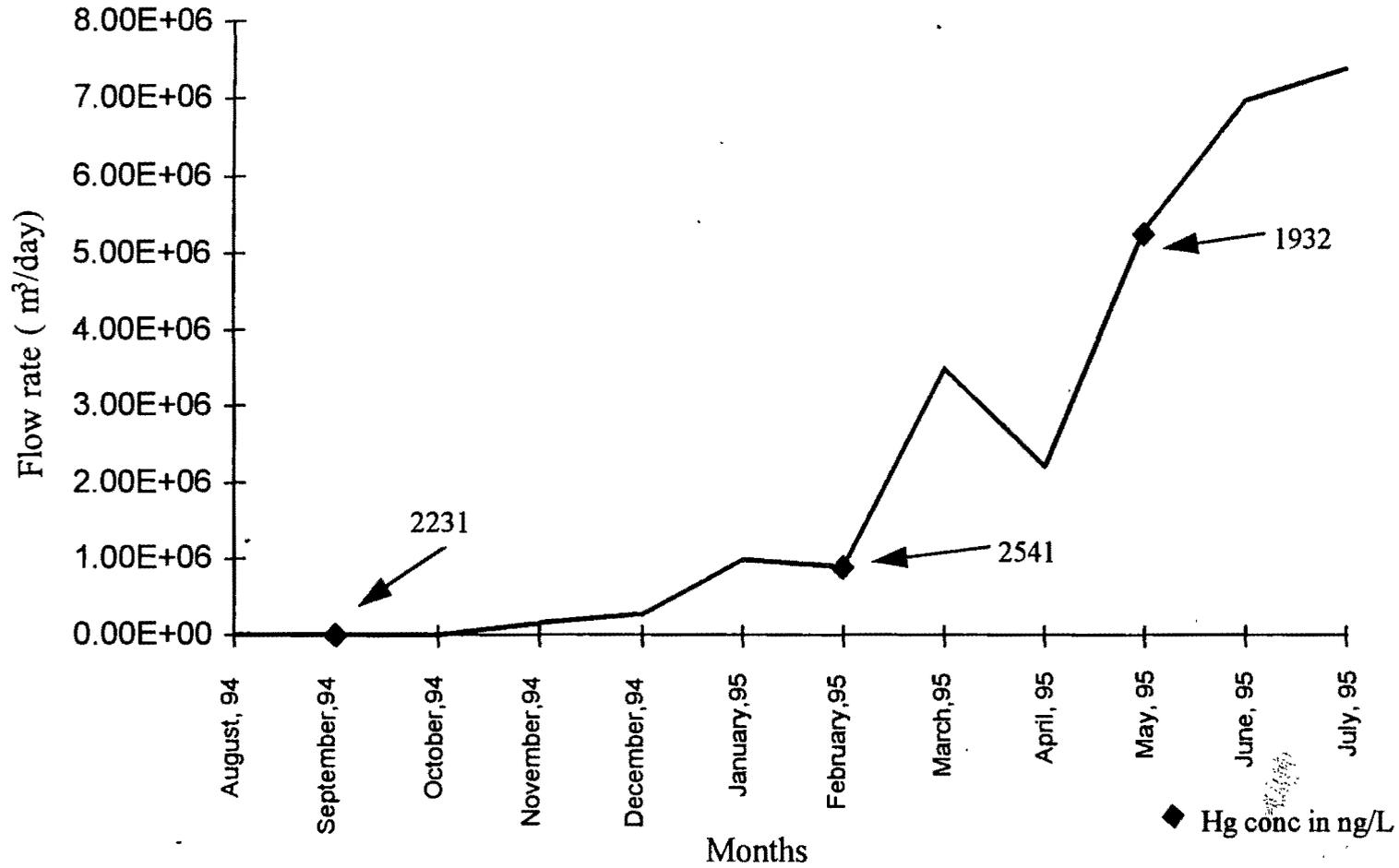
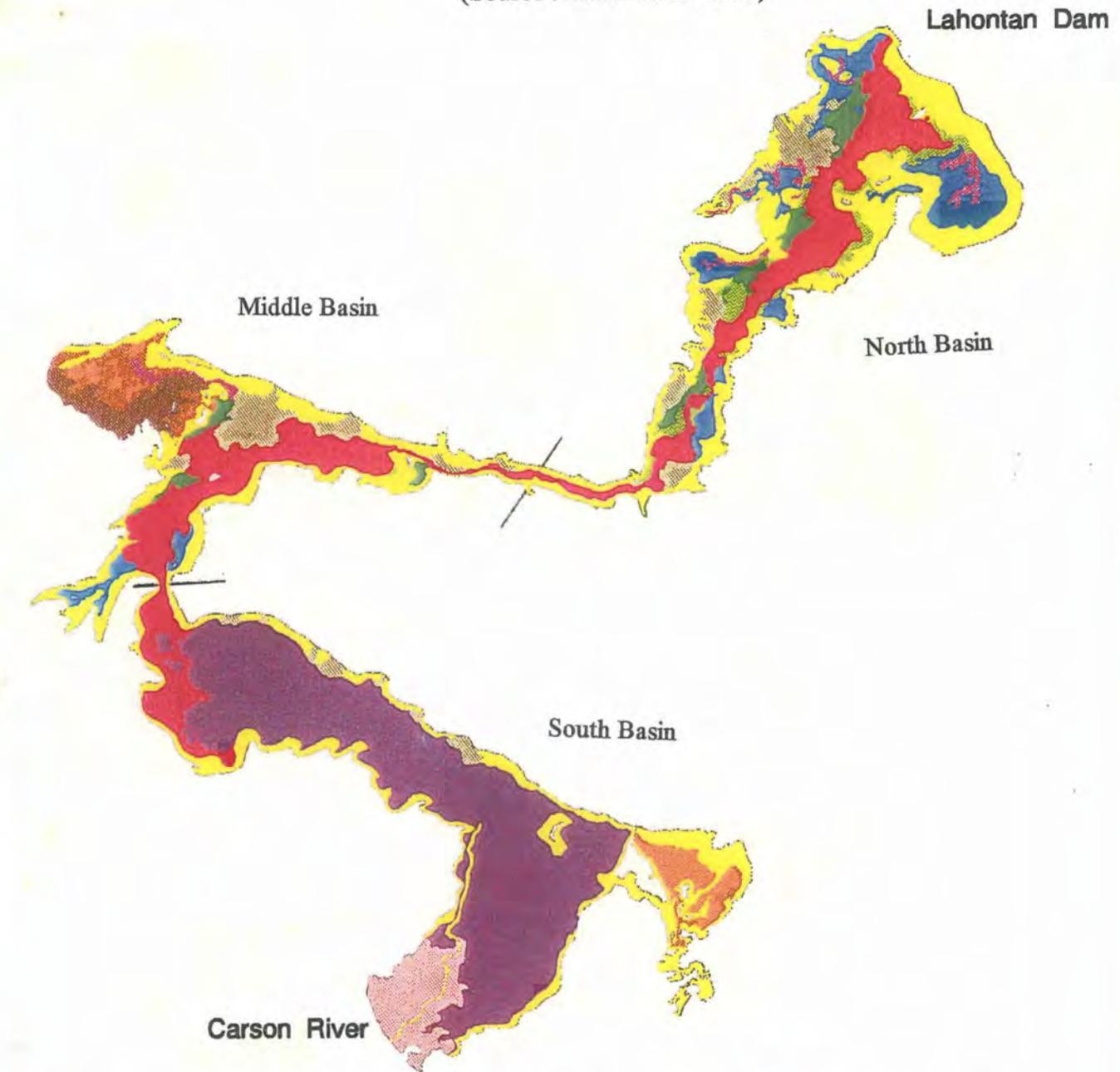


Figure 3 : Carson river flowrate and measured mercury concentrations for the study period.

Figure 2: Geologic map of Lahontan Reservoir with basin segmentation.

(Source : Miller et. al. 1995)



- |   |                       |   |                            |   |                       |
|---|-----------------------|---|----------------------------|---|-----------------------|
|  | Upper Beach Deposits  |  | Bottom Floodplain Deposits |  | Eolian Deposits       |
|  | Lower Beach Deposits  |  | Bottom Channel Deposits    |  | Alluvial Fan Deposits |
|  | Coastal Bar Deposits  |  | Bottom Shoal Deposits      |  | Pluvial Lake Deposits |
|  | Channel Fill Deposits |  | Deltaic Deposits           |  | Carson River Deposits |

# Mercury in Fish in Lahontan Reservoir (normalized by length)

